



# Pollution Prevention & Dental Facilities

P2 Works! Save Money, Reduce Liability

January 2001

## The Pollution Prevention Program's Dental Facilities Wastewater Discharge Study.

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### Dental Facility Discharges

The City of Albuquerque's Pollution Prevention (p2) Program is a **free**, non-regulatory, technical assistance program. The p2 Program conducted a wastewater sampling study of dental facility discharges in the **Northeast** area of Albuquerque during the Fall 2000. The silver results showed concentrations below the 5 parts per million (ppm) limit in the **City's Sewer & Wastewater Control Ordinance**. The results indicate the word is getting out about p2 best management practices. Dental offices are on the right track and doing a great job managing their spent x-ray fixer. Keep up the good work! We would like to encourage Albuquerque District Dental Society (ADDs) members to apply for our 5 parts per million (5 PPM) silver, and Pollution Prevention Award. Awards benefit dental offices by:

- ▶ offering free advertising
- ▶ An award certificate showing your Dental Office is environmentally conscious.

Awardees are posted on the City of Albuquerque's p2 web site [www.cabq.gov/p2](http://www.cabq.gov/p2).

### More About the Study.....

The City's study ran from August through October of 2000. The sampling area was determined by concentrations of dental offices. The pilot study focused on mercury and silver in wastewater. Only Silver and Mercury were tested. The City's wastewater treatment plant is designed to treat primarily domestic waste. The Southside Water Reclamation Plant (SWRP) is regulated and tested for state and federal compliance. The sewer system basin manholes that contained a large percentage of dental office discharges were identified and sampled. Basin 33 was selected because of the concentration of dental offices discharging to it. **The sample results showed mercury concentrations exceed the City's Sewer & Wastewater Control Ordinance**. The study shows dental facilities are a potential source of Hg in the Albuquerque's SWRP. The results listed will be calculated into mass and concentration totals when the study is completed. The sampling study will be ongoing and results will be shared as they become available. The chart attached depicts the results.

### Mercury: The New Frontier

EPA is expected to recommend stricter national water quality criteria for mercury at or near the level of **one part per trillion**. One part per trillion is already the limit in the Great Lakes area. (Source: Association of Metropolitan Sewerage Agencies). The New Mexico Surface Water Quality Bureau conducted a screening survey. → The survey covered over 2,000 miles of New Mexico water ways using ultra-clean sample

protocols. Data showed an average concentration of mercury in New Mexico waters is less than 2.5 parts per trillion. Mercury levels in the tissues of certain fish can still exceed the FDA action limit of one part per million. The City anticipates that new EPA limits will severely lower the mercury limit. The current Ordinance limit is **4,000 parts per trillion**. Rio Rancho's new NPDES permit proposed limit for a daily maximum for mercury is **51.10 parts per trillion**.

### p2 Techniques & Mercury

What can dental offices can do to reduce mercury?:

- ▶ Don't pour any amount of mercury into the sewer.
- ▶ Be aware that residual mercury has been known to collect in plumbing traps.
- ▶ Dental Offices should have a written Spill Control Plan for mercury, such a plan can be part of the required OSHA Spill Plan.
- ▶ Avoid storing mercury near carpeting or rough areas which are difficult to clean.
- ▶ Spilled mercury may be picked up with trap bottles, tapes or spill kits.
- ▶ Mercury can be recycled or disposed of as a hazardous waste.
- ▶ Remember that Recycling always carries the least amount of liability.

### P2 Staff Contact Info

The p2 Program offers Free training for dental offices which includes p2 techniques and best management practices. **This Training is State accredited for CEU's**. Please call the p2

Program about training opportunities or free training literature.

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### Website's for Mercury Reduction & Regulations Information

1. MWRA/MASCO Mercury Work Group  
[www.masco.org/mercury](http://www.masco.org/mercury)
2. A White Paper on Mercury: Surface Water Quality Bureau  
[www.nmenv.state.nm.us/swqb/hg\\_white.html](http://www.nmenv.state.nm.us/swqb/hg_white.html)
3. A Guide to Mercury Assessment & Elimination in Health Care Facilities  
[www.dhs.cagov/ps/ddwem/environmental/Med\\_Waste/medwasteindex.html](http://www.dhs.cagov/ps/ddwem/environmental/Med_Waste/medwasteindex.html)

